



California Environmental Protection Agency

AIR RESOURCES BOARD

Economic and Technology Advancement Advisory Committee Members

Alan Lloyd (Chair)

Dr. Lloyd is the President of the International Council on Clean Transportation. He served as the Secretary of the California Environmental Protection Agency from 2004 through February 2006 and as the Chairman of the California Air Resources Board from 1999 to 2004. Prior to joining ARB, Dr. Lloyd was the Executive Director of the Energy and Environmental Engineering Center for the Desert Research Institute at the University and Community College System of Nevada, Reno, and the Chief Scientist at the South Coast Air Quality Management until 1996. Dr. Lloyd's work focuses on the viable future of advanced technology and renewable fuels, with attention to urban air quality issues and global climate change. A proponent of alternate fuels, electric drive and fuel cell vehicles eventually leading to a hydrogen economy, he was the 2003 Chairman of the California Fuel Cell Partnership and is a co-founder of the California Stationary Fuel Cell collaborative. He earned both his B.S. in Chemistry and Ph.D. in Gas Kinetics at the University College of Wales, Aberystwyth, U.K.

Bob Epstein (Vice-Chair)

Dr. Epstein is an entrepreneur and engineer with a Ph.D. from the University of California at Berkeley. He is currently the Co-Founder of Environmental Entrepreneurs, Chairman of the Board at GetActive Software, Director of New Resource Bank, Director of Cleantech Capital Group, Board Member of the Merola Opera Program, and Trustee of the Natural Resources Defense Council. Dr. Epstein co-founded Environmental Entrepreneurs (E2), a national community of professionals and business people who believe in protecting the environment while building economic prosperity. It serves as a champion on the economic side of good environmental policy by taking a reasoned, economically sound approach to environmental issues. Through active support of Natural Resources Defense Council, E2 works to influence state and national environmental policy.

Economic and Technology Advancement Advisory Committee Members

Lisa Bicker

Ms. Bicker is President of the California Clean Energy Fund (CalCEF), a private nonprofit corporation formed to accelerate investment in California's clean energy economy. Before joining CalCEF, she was a Co-Founder and Chief Executive Officer of TruePricing, Inc. an energy technology company. Prior to that, Ms Bicker served as Chief Operating Officer of NewEnergy, Inc., a high-growth, retail electricity provider which is now the largest retail electricity provider in the United States. Ms. Bicker has also served as General Counsel to California Council for Environmental and Economic Balance, a non-profit advocacy group. She has a B.A. from the University of California at Davis and a J.D. from the University of San Francisco. She is a member of the California State Bar and several industry associations.

Jack Broadbent

As the Executive Officer/Air Pollution Control Officer, Mr. Broadbent is responsible for directing the Bay Area Air Quality Management District's programs to achieve and maintain healthy air quality for the seven million residents of the nine county region of the San Francisco Bay Area. Mr. Broadbent joined the Air District after serving as the Director of the Air Division at the U.S. Environmental Protection Agency, Region IX, where he was responsible for overseeing the implementation of the Clean Air Act as well as indoor air quality and radiation programs for the Pacific Southwest region of the United States. Previously, Mr. Broadbent was the South Coast Air Quality Management District's Deputy Executive Officer, where he directed the development of a number of landmark programs that contributed to significant improvements in air quality in the Los Angeles region. Mr. Broadbent holds a Master's degree in Environmental Administration and a Bachelor of Science degree in Environmental Science, both from the University of California at Riverside.

Cynthia Cory

Ms. Cory is the Director of Environmental Affairs, Government Affairs Division, for the California Farm Bureau Federation (CFBF), a non-profit agricultural trade association with more than 91,500 members in 53 counties in California. She has been associated with the agricultural community for over thirty years; the past seventeen years have been at CFBF working on state and federal matters including air quality, biotechnology, climate change, transportation and renewable bioenergy issues. Ms. Cory has a M.S. in International Agricultural Development and a B.S. in Agronomy. She is also a member of the USDA Agricultural Air Quality Taskforce and serves on several advisory committees including the Governor's Environmental Advisory Task Force, the California Energy Commission's Climate Change Advisory Committee and their Biodiesel Working Group.

Economic and Technology Advancement Advisory Committee Members

Dominic DiMare

Mr. DiMare is the California Chamber of Commerce's Vice President of Government Relations and Chief Legislative Advocate. Before joining the Chamber in 2000, Mr. DiMare lobbied for agricultural cooperatives, focusing on deregulation of the electric utility industry, transportation and workers' compensation issues. DiMare earned a B.A. in history and public communications from American University and a J.D. from the McGeorge School of Law, University of the Pacific.

Alex Farrell

Dr. Farrell is an Assistant Professor in the Energy and Resources Group at the University of California at Berkeley and Director of the Transportation Sustainability Research Center. He has a degree in Systems Engineering from the U.S. Naval Academy and served as a nuclear engineer onboard a submarine. After that, Dr. Farrell worked for the world's largest hydrogen supplier, Air Products and Chemicals, Inc. He received his Ph.D. in Energy Management and Policy from the University of Pennsylvania and then worked as a research fellow at Harvard, and a research engineer at Carnegie Mellon University, where he remains part of the Climate Decision Making Center. For the last decade, Dr. Farrell has conducted research on energy and environmental policy and has published over two dozen peer-reviewed papers on these topics. He has served on advisory committees for the National Academy of Engineering, the National Science Foundation, and has consulted for various public and private organizations.

Bill Gerwing

Mr. Gerwing is the BP America General Manager of Regulatory Affairs. He is responsible for regulatory issues management process, government regulator and non-government organization stakeholder engagement strategy, and leads advocacy efforts on emerging US climate change policy and regulations. Mr. Gerwing has twenty five years of knowledge and experience within the Health, Safety, and Environment (HSE) fields, gained through a number of diverse assignments with the corporate and operating business units within BP and Amoco. In 2003, he was appointed as the Director of HSE for BP's Western Hemisphere business and was then named to his current role focused on US activities in 2006. Mr. Gerwing represents BP on PEW's Business Environmental Leadership Committee (BELC), API Climate Change Steering Committee, and a variety of external stakeholder forums to advance policy development on climate issues.

Economic and Technology Advancement Advisory Committee Members

Scott Hauge

Mr. Hauge is the President and owner of CAL Insurance & Associates, Inc., which was founded in 1927 and currently has 27 employees. The agency specializes in providing insurance for small to medium sized businesses. He has been a leading advocate in paving the way for small and medium sized businesses by introducing government legislation that has affected business on local, state and national levels. Mr. Hauge is renowned for his knowledge of how to best protect and serve the business community. He is currently a member of over 20 boards and commissions in San Francisco and California. He is the founder of the San Francisco Small Business Advocates and most recently, Small Business California.

Jim Hawley

Mr. Hawley is the Vice President and General Counsel of Technology Network (TechNet), a California political and legislative strategy group, working with senior executives and government relations staff of California-based technology companies. He directed successful TechNet lobbying efforts related to green technology, litigation issues, e-commerce regulation, corporate taxation, and broadband deployment. Mr. Hawley has a B.A. Magna Cum Laude in political science from Amherst College, a JD from Georgetown University Law Center and an active member of the California Bar Association.

Patti Krebs

Patti Krebs is the Executive Director of the Industrial Environmental Association, a Southern California public policy trade organization that represents manufacturing, technology and research and development companies on a wide variety of legislative, regulatory and policy issues that affect their facilities and operations.

Patti currently serves on the San Diego Association of Governments Energy Working Group, the Port of San Diego's Maritime Advisory Committee, the San Diego Regional Airport Authority Technical Advisory Group and has been instrumental in the organization and founding of the San Diego Regional Sustainability Partnership. She is a past member of the Board of Directors of San Diego Transit Corporation, the San Diego Natural History Museum and the San Diego Symphony. She has served on numerous statewide technical boards and commissions including the State Water Resources Control Board Advisory Group on TMDLs and the Air Resources Board Neighborhood Assessment Group.

Patti has a bachelor's degree in Communications from San Diego State University.

Economic and Technology Advancement Advisory Committee Members

Jason Mark

Jason Mark is the U.S. Transportation Program Officer at the Energy Foundation, a private foundation which promotes a sustainable energy future through increased energy efficiency and renewable energy. From 1995 to 2006, Mr. Mark worked for the Union Concerned Scientists (UCS), ultimately as the national Director of the Clean Vehicles Program and as the organization's California Director. He was the lead author on many UCS reports in the transportation and energy field. Before joining UCS, Mr. Mark worked as an independent consultant on transportation policy analysis as well as at the National Renewable Energy Laboratory and the Center for Energy and Environmental Studies at Princeton University. He holds a bachelor's degree in mechanical engineering from Princeton University and a master's in energy and resources from the University of California at Berkeley.

Joan Ogden

Dr. Ogden is Associate Professor of Environmental Science and Policy at the University of California, Davis and an Associate Energy Policy Analyst and Co-Director of the Hydrogen Pathway Program at the Institute of Transportation Studies (ITS-Davis). Her primary research interest is technical and economic assessment of new energy technologies, especially in the areas of alternative fuels, fuel cells, renewable energy and energy conservation. Since 1994 she has studied alternative strategies for developing a hydrogen infrastructure for transportation applications. Ogden and her colleagues have developed an extensive set of data on hydrogen and fuel cell technologies, and tools for modeling infrastructure performance and costs. She is now active in the H2A, a group of hydrogen analysts convened by the Department of Energy to develop a consistent framework for analyzing hydrogen systems. She served on the Blueprint Advisory Panel for the California Hydrogen Highway Network. Dr. Ogden received a Ph.D. in theoretical plasma physics from the University of Maryland, with a specialization in numerical simulation techniques. She was a research scientist at Princeton University's Center for Energy and Environmental Studies and her recent work centers on the use of hydrogen as an energy carrier, particularly hydrogen infrastructure strategies, and applications of fuel cell technology in transportation and stationary power production.

Dorothy Rothrock

Ms. Rothrock is Vice President of Government Relations for the California Manufacturers and Technology Association since 2000. Previously, she consulted on energy and telecommunications regulatory issues for industrial energy users, policy advocates, and economic research firms. Ms Rothrock graduated from University of Oregon and Lewis and Clark Law School, joining the Oregon Bar in 1980 and the California Bar in 1997.

Economic and Technology Advancement Advisory Committee Members

Jan Smutny-Jones

Mr. Smutny-Jones is Executive Director of the Independent Energy Producers Association (IEP) and has represented IEP since 1987. He was a principal in the California Memorandum of Understanding and a key party in the restructuring legislation. He has served as Chair of the Governing Board of the California Independent System Operator, and as a member of the Governing Board of the California Power Exchange and the Restructuring Trusts Advisory Committee. Mr. Smutny-Jones is a graduate of Loyola Law School and is a member of the American, California State and Sacramento County Bar Associations. He did his undergraduate work at California State University, Long Beach, and has a certificate in Environmental Management from the University of Southern California.

Andrea Tuttle

Andrea Tuttle has 30 years experience in California resource policy issues. She is former Director of the California Department of Forestry and Fire Protection (CDF), and served on the California Coastal Commission and the North Coast Regional Water Quality Control Board. She was principal consultant to the Select Committee on Forest Resources in the California Senate, and has consulted on sustainable forest management in Malaysia. She currently teaches forest and fire policy in the College of Natural Resources at UC Berkeley and is a board member of The Pacific Forest Trust. She is a strong advocate for retaining working forestlands for their environmental, economic and social values, and incorporating the role of forests in a climate strategy. She has a Ph.D. in Environmental Planning from UC Berkeley and an MS in biology from the University of Washington.

Fong Wan

Mr. Wan is Vice President of Energy Procurement for Pacific Gas and Electric Company (PG&E), and is responsible for gas and electric supply planning and policies, market assessment and quantitative analysis, supply development, procurement and settlement. Mr. Wan joined PG&E in 1988 and moved to Energy Trading in 1997. He served as Vice President, Risk Initiatives for PG&E Corporation Support Services, Inc and as Vice President, Power Contracts and Electric Resource Development. Mr. Wan has a Bachelor of Science degree in chemical engineering from Columbia University and a M.B.A from the University of Michigan.

Jonathan Weisgall

Mr. Weisgall is Vice President for Legislative and Regulatory Affairs for MidAmerican Energy Holdings Company, a subsidiary of Berkshire Hathaway. He also serves as Chairman of the Board of Directors of the Center for Energy Efficiency and Renewable Technologies and President of the Geothermal Energy Association. He is an Adjunct Professor of Law at Georgetown University Law Center, where he has taught a seminar on energy issues since 1990, and he has also guest lectured on energy issues at Stanford Law School and the Johns Hopkins Environmental Science and Policy Program. Mr. Weisgall earned his B.A. from Columbia College and his J.D. from Stanford Law School, where he served on the Board of Editors of Stanford Law Review.

Economic and Technology Advancement Advisory Committee Members

John Weyant

Dr. Weyant is Professor of Management Science and Engineering, a Senior Fellow in the Institute for International Studies, and Director of the Energy Modeling Forum (EMF) at Stanford University. Established in 1976, the EMF conducts model comparison studies on major energy/environmental policy issues by convening international working groups of leading experts on mathematical modeling and policy development. Prof. Weyant earned a B.S./M.S. in Aeronautical Engineering and Astronautics, M.S. degrees in Engineering Management and in Operations Research and Statistics all from Rensselaer Polytechnic Institute, and a Ph.D. in Management Science with minors in Economics, Operations Research, and Organization Theory from University of California at Berkeley. Dr. Weyant was also a National Science Foundation Post-Doctoral Fellow at Harvard's Kennedy School of Government. His current research focuses on analysis of global climate change policy options, energy technology assessment, and models for strategic planning.

Rick Zalesky

Mr. Zalesky is Vice President of the Biofuels and Hydrogen business for Chevron Technology Ventures Company, LLC. In this role, he has responsibility for the commercialization of infrastructure development, production and supply, as well as all current technology initiatives. Mr. Zalesky joined the company in 1978 holding a variety of management positions of increasing responsibility in the downstream in refining, marketing, and technology. He is Chevron's representative on the Fuel Operations Group of the FreedomCAR and Fuel Program of the Department of Energy and a member of the UC Davis External Research Advisory Board. Mr. Zalesky is a graduate of the Georgia Institute of Technology, with a bachelor's degree in Civil Engineering.
